

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (previously presented) A method of controlling a temperature of an applicator body, the method comprising:

providing an applicator body that comprises at least one electrode surface;
delivering a coolant through a conduit in at least a portion of the applicator body at a substantially constant rate;

delivering sufficient heat energy, from within the applicator body, to the at least one electrode surface by energizing one or more heating elements so that the at least one electrode surface of the applicator body is cooled by the coolant to a desired temperature; and
delivering therapeutic electrical energy through the at least one cooled electrode surface.

2. (previously presented) The method of claim 1 comprising contacting the at least one electrode surface against a surface adjacent pelvic support tissue.

3. (previously presented) The method of claim 2 wherein the cooled at least one electrode surface cools the contacted tissue that is adjacent the pelvic support tissue to a temperature between 0°C and 40°C.

4. (original) The method of claim 1 wherein the desired temperature is between about - 5°C and about 3°C.

5. (original) The method of claim 3 wherein the desired temperature is about -2°C.

6. (original) The method of claim 1 wherein the coolant comprises a R134a refrigerant gas.

7. (canceled)

8. (previously presented) The method of claim 1 comprising reducing a power level of the energy delivered to the heating element when the therapeutic heating energy is delivered to the at least one electrode surface.

9. (previously presented) The method of claim 1 comprising:
monitoring a temperature of the at least one electrode surface; and
adjusting a power level of the energy delivered to the heating element to maintain the at least one electrode surface of the applicator body at substantially the desired temperature.

10. (original) The method of claim 1 wherein the heating element comprises a plurality of resistive heating elements positioned within the applicator body.

11. (original) The method of claim 10 wherein the resistive heating element(s) contact a portion of the applicator body surrounding the coolant.

12. (previously presented) The method of claim 10 wherein the resistive heating element(s) are positioned in such a way as to minimize a flow related spatial distribution of temperature across the contact surface.

13. (original) The method of claim 12 wherein the spatial distribution of temperature across the contact surface is reduced to less than about 2 degrees Celsius.

14. (previously presented) The method of claim 12 wherein the resistors are chosen to be at different wattage values in such a way as to reduce a flow related spatial distribution of temperature across the electrode surface while still permitting use of a single power source.

15. (original) The method of claim 1 wherein providing the applicator body comprises providing the coolant in a path for distributing the coolant substantially evenly over the contact surface.

16. (original) The method of claim 15 wherein the path is a serpentine path.

17. (currently amended) An applicator that delivers energy comprising:
an applicator body comprising a proximal portion and a distal portion;
an electrode surface on the distal portion of the applicator body for delivering therapeutic electrical energy therethrough;
a conduit that delivers a coolant on a path through at least a part of the distal portion of the applicator body; and
one or more heating elements thermally coupled, from within the applicator body, to the distal portion of the applicator body and entirely beneath the electrode surface to deliver a heating energy to the coolant in the conduit, wherein the energy is sufficient to heat the coolant so that the electrode surface is at a desired temperature.

18. (canceled)

19. (previously presented) The applicator of claim 17 further comprising an RF power source coupled to the electrodes.

20. (previously presented) The applicator of claim 17 further comprising a control assembly that controls the delivery of the coolant and the heating element(s).

21. (previously presented) The applicator of claim 17 wherein the heating energy delivered to the heating element(s) is discontinued when the therapeutic energy is delivered to the electrodes.

22. (original) The applicator of claim 17 further comprising a power supply coupled to the heating element(s), wherein the power supply is controlled with a temperature control algorithm.

23. (original) The applicator of claim 17 wherein the heating element(s) comprises resistive heating elements.

24. (currently amended) The applicator of claim 23 wherein the heating elements are positioned to reduce a temperature differential across the electrode contact surface to less than about 2 degrees Celsius.

25. (currently amended) The applicator of claim 23 wherein the electrode contact surface defines a proximal end and a distal end, wherein the heating elements are positioned to deliver more energy toward the proximal end of the electrode contact surface.

26. (original) The applicator of claim 17 wherein a flow of the coolant is substantially constant.

27. (currently amended) The applicator of claim 17 wherein the desired temperature of the electrode contact surface is between about - 5°C and about 3°C.

28. (original) The applicator of claim 17 wherein the coolant comprises a R134a refrigerant gas.

29. (currently amended) An applicator that delivers energy comprising:
an applicator body comprising a proximal portion and a distal portion;
an electrode surface on the distal portion of the applicator body for delivering
therapeutic electrical energy therethrough;
a conduit that delivers a coolant on a path through at least a part of the distal
portion of the applicator body. ~~The applicator of claim 17~~ wherein the coolant path through the distal portion of the applicator is a serpentine path; and
one or more heating elements thermally coupled, from within the applicator body,
to the distal portion of the applicator body to deliver a heating energy to the coolant in the
conduit, wherein the energy is sufficient to heat the coolant so that the electrode surface is at a
desired temperature.

30. (currently amended) The applicator of claim 17 further comprising a temperature sensor that monitors a temperature of the electrode contact surface.

31. (currently amended) A system for heating a target tissue adjacent an intermediate tissue, the system comprising:

a body comprising one or more electrodes oriented for contacting the intermediate tissue;

a control system coupled to a power source and to the electrode(s), the control system adapted to selectively energize the electrode(s) so as to deliver a therapeutic heating energy through the intermediate tissue to the target tissue; and

a cooling assembly configured to control a temperature of the electrode(s), wherein the cooling assembly comprises:

a flow conduit positioned in the body to deliver a coolant adjacent the electrode(s);

a heating element positioned entirely under adjacent the electrode(s) and flow conduit to deliver energy to the flow conduit from within the body;

a temperature sensor positioned adjacent the electrode that measures a temperature of the electrode.

32. (original) The system of claim 31 further comprising the power source, wherein the power source is an RF power source.

33. (original) The system of claim 31 wherein the temperature sensor comprises a thermocouple.

34. (original) The system of claim 31 wherein the coolant comprises a R134a gas.

35. (canceled)